

## The State of New Hampshire

## Department of Environmental Services



Michael P. Nolin Commissioner

> May 11, 2005 Letter of Deficiency DSP#05-010

Mr. Paul Putnam Enfield Water Department Main Street Enfield, NH 03748-0373

RE: Enfield Reservoir Dam #036.08, Canaan

Dear Mr. Putnam:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on June 15, 2004. During this visual inspection and/or file review, the following deficiency was observed:

- 1. The tree line located downstream of the dam is encroaching on the toe;
- 2. There is minor brush growth both upstream and downstream of the spillway located at the left end:
- 3. The rip rap located on the entire upstream slope of the dam appears to be undermined and the upstream slope has been eroded;
- 4. There is standing water located along the right downstream embankment toe in the location of historical seepage. The tree line is preventing proper inspection of the area;
- 5. The concrete gate structure appears to be in good condition, however, the configuration and condition of the gates and low level outlets is unknown;
- 6. There is documentation in the file describing conversations between the Town and DES regarding the installation and detailed monitoring of the seepage located along the toe of the dam. However, there is no indication if detailed seepage monitoring plan was implemented; and
- 7. The Emergency Action Plan (EAP) has not been updated since 2003.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

September 1, 2005:

1. Remove all the trees along the toe of the dam for a minimum of 15 feet on the horizontal from the toe of the dam;

DES Web site: www.des.nh.gov

Letter of Deficiency Dam #036.08/DSP#05-010 May 11, 2005 pg. 2

- 2. Remove the minor brush located both upstream and downstream in the vicinity of the spillway;
- 3. Repair the undermined rip rap along the upstream slope of the entire length of the dam. The rip rap must be restored to its original design configuration;
- 4. Review your records and report to DES if a seepage monitoring plan was implemented and supply and data collected. If a plan was not implemented, develop and implement a detailed seepage monitoring plan;
- 5. Investigate and report on the gate structure configuration and condition and sizes of the gates and low level outlet; and
- 6. Test and update the EAP. Update the EAP as necessary, including names and telephone numbers included in the EAP. The DES has new emergency contact numbers. These should replace the existing telephone number on the flowchart: cell 419-9206 and pager 639-6982. Include the enclosed revised inundation map in the update mailing. The inundation area is more clearly delineated, and there is additional information on the level of flooding. If you have any questions relative to your EAP you can contact Bethann McCarthy, P.E., EAP Coordinator at 271-4167.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. Please call or write to our office if the repairs are completed ahead of the aforementioned schedule so that DES may schedule a follow-up inspection. Unless notified otherwise, DES will conduct the follow-up inspection on or after the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the bottom of the previous page.

Dam Safety Engineer

Attachments DB8, DB13

cc: Gretchen R. Hamel, Legal Unit Administrator Bethann McCarthy, P.E., EAP Coordinator

Town of Canaan

Certified # 7000 1670 0000 0588 6158

JMB/was/h:/safety/wendy/lod/036-08blod.doc